

WHAT IS CLAIMED IS:

1 1. A method for transmitting generic information in an Ethernet Media Access
2 Control (MAC) header comprising:

3 receiving a packet, the packet including a MAC header and a payload;
4 classifying the packet;
5 determining relevant generic information for the packet;
6 formatting an Ethernet frame and inserting the generic information into the
7 type/length field of the Ethernet frame MAC header; and
8 sending the formatted Ethernet frame to a destination based on the generic
9 information in the MAC header.

1 2. The method according to claim 1, wherein the generic information
2 comprises a tag/label.

1 3. The method according to claim 1, further comprising receiving the Ethernet
2 frame at a first device connected to an Ethernet backplane, the destination being a
3 second device connected to the Ethernet frame.

1 4. The method according to claim 3, further comprising interconnecting the
2 first device and the second device on the Ethernet backplane via an Ethernet
3 switch/hub.

1 5. The method according to claim 1, further comprising classifying the packet
2 based on the contents of the packet payload.

1 6. The method according to claim 1, wherein the packet comprises one of an
2 Internet Protocol (IP) packet and an Internetwork Packet Exchange (IPX) packet.

1 7. The method according to claim 1, wherein the Ethernet frame comprises a
2 non-tagged IEEE 802.3 frame.

1 8. The method according to claim 1, wherein the Ethernet frame comprises a
2 tagged Virtual Local Area Network (VLAN) IEEE 802.1P/802.1Q frame.

1 9. The method according to claim 1, wherein the generic information has
2 significance globally to all devices connected to an Ethernet backplane.

1 10. The method according to claim 1, wherein the generic information has
2 significance only locally to fewer than all devices connected to an Ethernet
3 backplane.

1 11. A device connected to an Ethernet backplane comprising:
2 an input interface, the input interface capable of receiving a packet, the packet
3 including a MAC header and a payload;
4 at least one processor, the at least processor capable of classifying the
5 packet, determining relevant generic information for the packet, formatting an
6 Ethernet frame, and inserting the generic information into the type/length field of the
7 Ethernet frame MAC header; and

an output interface, the output interface capable of sending the formatted Ethernet frame to a destination based on the generic information in the MAC header.

12. The device according to claim 11, wherein the device comprises one of a router, a server, an encryption device, a voice processor, and a computing device.

13. The device according to claim 11, wherein the output interface connects to one of an Ethernet backplane and an external connection.

14. The device according to claim 11, wherein the generic information comprises a tag/label.

15. An apparatus comprising a storage medium with instructions stored therein, the instructions when executed causing a computing device to perform:

- receiving a packet, the packet including a MAC header and a payload;
- classifying the packet;
- determining relevant generic information for the packet;
- formatting an Ethernet frame and inserting the generic information into the type/length field of the Ethernet frame MAC header; and
- sending the formatted Ethernet frame to a destination based on the generic information in the MAC header.

16. The apparatus according to claim 15, further comprising classifying the packet based on the contents of the packet payload.

1 17. The apparatus according to claim 15, wherein the packet comprises one
2 of an Internet Protocol (IP) packet and an Internetwork Packet Exchange (IPX)
3 packet.

1 18. The apparatus according to claim 15, wherein the Ethernet frame
2 comprises a non-tagged IEEE 802.3 frame.

1 19. The apparatus according to claim 15, wherein the Ethernet frame
2 comprises a tagged Virtual Local Area Network (VLAN) IEEE 802.1P/802.1Q frame.

1 20. The apparatus according to claim 15, wherein the generic information has
2 significance one of globally to all devices connected to an Ethernet backplane and
3 only locally to fewer than all devices connected to an Ethernet backplane.